

L010,218



PATENT SPECIFICATION

DRAWINGS ATTACHED

Inventor: WILLIAM JOSEPH KEMP

Date of filing Complete Specification: Oct. 16, 1964.

Application Date: Oct. 30, 1963.

No. 42895/63.

Complete Specification Published: Nov. 17, 1965.

© Crown Copyright 1965.

L010,218

Index at acceptance:—B8 C(10B1A, 10B1C, 10B1D3, 10B1E, 12F, 15A, 24D)

Int. Cl.:—B 65 b

COMPLETE SPECIFICATION

An improved Cigarette Package

We, THE MOLINS ORGANISATION LIMITED, a British Company, (formerly known as Molins Machine Company Limited) of 2, Evelyn Street, Deptford, London, S.E.8, do hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

Thus invention concerns an improved cigarette package.

When twenty cigarettes are arranged in a 7—6—7 formation of three rows, and enclosed in a packet of substantially oblong cross-section, it is common to have the cigarettes of the middle row nested in the cigarettes of the other rows to provide a compact package. "Nested" means that a middle row cigarette is tangential to two cigarettes in the first other row and two cigarettes in the second other row. That is, each middle row cigarette lies in the cusp shaped recesses formed by each pair of cigarettes referred to.

The commonest arrangement of this kind is a package of twenty cigarettes arranged in 7—6—7 formation, as mentioned above, but similar arrangements are possible for different numbers of cigarettes.

The nesting of the middle row cigarettes in the other rows implies that the narrow sides of the packet are not properly supported by the batch of cigarettes as there is a space between each side wall and the end cigarette of the middle row and the resulting lack of rigidity of the side walls is sometimes regarded as objectionable, seeing that it is common to grasp a cigarette package by the narrow sides.

While the invention about to be described is primarily intended for use for a packet of substantially the same size and shape as a packet for three rows in 7—6—7 formation it can be applied to any packet where the number of cigarettes to be packed divided by the number of rows is not a whole number.

According to the invention a batch of cigarettes to be packed in more than one row is

arranged so that a cigarette, not at the end of a row, is nested between two cigarettes, each of a different row, at one side of it and two similarly disposed cigarettes at the other side of it. For example, if a two-row package is to contain an odd number of cigarettes there will be two short rows at each side of a single cigarette which is nested between two cigarettes of different rows at one side of it and two similar cigarettes at the other side of it so that the single cigarette has its axis level with the line of contact between the cigarettes of the two rows.

For three-row packages a single cigarette will be similarly positioned between the first and second row and another between the second and third row. Where possible the short rows referred to will contain the same number of cigarettes.

An example of the invention will be described with reference to the accompanying drawings in which:—

Figure 1 is a cross section of a package containing 20 cigarettes arranged according to the invention,

Figure 2 is a perspective diagram illustrating how cigarettes can be fed in the desired formation, and

Figure 3 shows the invention applied to a two-row package.

Referring first to Figure 1, the packet 1 is substantially of the same size as a packet containing three rows of cigarettes in the 7—6—7 formation. For the reasons given earlier two cigarettes 2 and 3 at the middle of the package are nested, the first between two cigarettes on either side of it belonging to the top and middle row, and the second between the two cigarettes on either side of it belonging to the middle and bottom row. As shown, the packet is symmetrical, with short equal rows at each side of the two middle cigarettes, but it will be appreciated that the two cigarettes shown in the middle can be in some other position provided that the narrow side walls of the packet are properly supported by three cigar-

50

55

60

65

70

75

80

85

90

ettes as shown. The height of the batch is somewhat greater than if the cigarettes were in 7—6—7 formation but where the packet size has already been fixed, the batch shown can be compressed sufficiently to fit in the packet.

The feeding of cigarettes in this formation can be carried out by conventional devices and Figure 2 shows a suitable arrangement. In this figure a number of partitions 5 provide slots 6 down which cigarettes pass from a hopper (not shown). Arrangements of this kind are usually termed vane hoppers. 7 represents the level of the bed of the machine and it will be seen that the middle slot has a packing piece 8 fixed to the bed and of a thickness equal to half the diameter of a cigarette. A batch is pushed out of the slots by a reciprocating pusher 9, which is slotted to provide a number of prongs or fingers 10, and at each side of the pusher there are three prongs of a height suitable to eject three cigarettes from a slot at each stroke. The middle prong which is marked 10A is of a depth substantially equal to the diameter of two cigarettes and its base is arranged at a distance above the bed level slightly exceeding half the diameter of a cigarette so that it will pass over the packing piece 8 and eject two cigarettes as the pusher moves forwards. As a batch is ejected it passes between guides or other restraining devices which preserve the batch formation, all these devices being commonplace in the art.

When the pusher withdraws from the slots the cigarettes of the three outer slots on either side pass down to the bed level in the usual manner while those of the middle slots pass down until the lowest cigarette comes into

contact with the packing piece.

In Figure 3, fifteen cigarettes are shown in two rows. This number has been chosen because a known commercial package contains fifteen, but any odd number of cigarettes required to be packed in two rows can be handled in the same way. In the case illustrated, the short rows, at either side of the central cigarette, are of unequal length.

WHAT WE CLAIM IS:—

1. A cigarette package containing a batch of cigarettes arranged in more than one row, and in which the number of cigarettes in the batch, divided by the number of rows, is not a whole number, wherein a cigarette, not at the end of a row, is nested between two cigarettes, each of a different row, at one side of it and two similarly disposed cigarettes at the other side of it.

2. A cigarette package as claimed in claim 1 and for a batch of twenty cigarettes, arranged in three rows, namely a top, middle and bottom row, in which a single cigarette is nested between two cigarettes of the top and middle rows at one side of it and two cigarettes of the top and middle rows at the other side of it, while another single cigarette is similarly nested between cigarettes of the middle and bottom rows.

3. A cigarette package substantially as herein described with reference to the accompanying drawings.

FREDERICK W. HACKING,
Chartered Patent Agent,
2, Evelyn Street, Deptford,
London, S.E.8.
Agent for the Applicants.

1010218

COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of
the Original on a reduced scale

